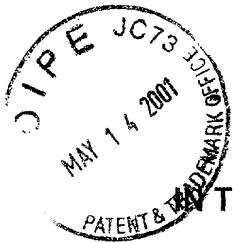


PATENT



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: RANDALL G. MUTTERS; JAMES W. ECKERT
Serial No.: 09/778,595
Filed: FEBRUARY 6, 2001
For: METHOD AND APPARATUS FOR DETERMINING PLANT NUTRIENT STATUS
Group No.:
Examiner:
Docket No.: UC2001-209-1

Assistant Commissioner for Patents
Washington, D.C. 20231

FIRST PRELIMINARY AMENDMENT

Dear Sir:

Please enter the following preliminary amendment in connection with the above-identified U.S. patent application, serial number 09/778,595 filed on February 6, 2001:

IN THE DRAWINGS:

Please amend FIG. 4 of the drawings as shown in the attached marked version with the amendment shown in red.

IN THE SPECIFICATION:

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Please replace the paragraph beginning on page10, line 11 with the following:

Additionally, the colors of the leaf may be described using the numbers corresponding to either the entire visible spectrum or, preferably, more precise discrete intervals (e.g. approximately 10 nm) to provide better resolution. Color panels are preferably constructed based on the gradients in these descriptive variables across the visible light spectrum (approximately 400nm to approximately 700 nm) partitioned into approximately 10 nm intervals providing a spectral profile. In other words, reflectance values describing every 10 nm increment of the visible spectrum are preferably obtained. While 10nm intervals were selected for purposes of illustration, it will be understood by those skilled in the art that any desired interval and spectrum range could be selected.

Please replace the paragraph beginning on page 17, line 18 with the following:

A marginal portion M along the longitudinal edge 110 of the plastic color chart has been removed to facilitate direct visual comparison between the whole crop and the color panels 102.

REMARKS

This Preliminary Amendment is being submitted to correct minor errors in the specification and drawings, and entry is respectfully requested.

1. The Applicant has corrected FIG. 4 of the drawings as follows:

In the specification at page 5, lines 11-13 and at page 17, lines 18-20, the Applicant makes reference to a marginal portion along the longitudinal edge 110 of the plastic color chart that is preferably removed.

While the language in the specification is clear and the longitudinal edge of the plastic color chart is clearly shown in FIG. 14, the lead line from reference number 110 extends beyond the longitudinal edge. Accordingly, the Applicant is submitting herewith a drawing correction.

In addition, FIG. 4 of the drawings do not contain a reference number for the marginal portion of the longitudinal edge which can be removed (i.e., the portion between edge 110 and color panels 102), which is also addressed by the drawing correction. It is understood from the specification that the marginal edge would be removed to facilitate direct visual comparison between the whole crop and the color panels 102. (Page 17, lines 18-20; Page 18, lines 4-6).

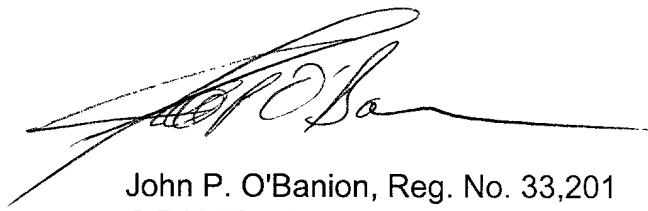
Also, the lead line from reference number 104 is in the incorrect position. As described at page 17, line 7, reference number 104 denotes the support structure. Accordingly, the lead line for reference number 104 has been corrected.

No new matter has been added, and approval of the drawing correction is respectfully requested.

2. The Applicant has amended the specification at page 17, line 18 to conform the language to the addition of reference number M in FIG. 4.
3. The Applicant has clarified the specification at page 10, lines 16-18 by removing redundant and unnecessary language.

Date: 5/11/01

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES

IN THE SPECIFICATION:

On page 10, line 16, replace "an L*, a*," with --reflectance values--.

On page 10, line 17, delete "and b* value".

On page 10, line 17, delete "or thirty, three".

On page 10, line 18, delete "variable sets for each leaf color (700 –400 = 300;
300/10 = 30)".

On page 17, line 18, after "portion" insert --M--.

IN THE DRAWINGS:

The drawing corrections are shown in red on the attached sheet.